By Benjamin Didier and Sean Fowler
We would like to thank Alison Bell and Jay Didier for their help in the mapping of structure B.
Introduction.

For the past six weeks we have been involved in the excavation of the Longdale Mining Complex located in the eastern part of Allegheny County, Virginia. The mining complex was believed to have been in operation from 1827 to 1920 and was composed of three communities (Russ, McDaniel, Upchurch). These three communities were industrial centers as well as residences for those involved in the mining industry. The complex was responsible for the large scale mining, smelting, processing, and distribution of iron ore in the nineteenth century. The rural self-sufficient complex gives us great insight into the industrial and cultural atmosphere of this era in western Virginia.

Our goals as archaeologists are to gain a better understanding of how the complex functioned as well as the lifeways of the inhabitants. In order to gain this understanding, we rely on the clues left behind by the people of these communities. Through excavation, clearing, and mapping, we are able to discover these historical remnants that we refer to as artifacts. By recovering these artifacts, be they industrial or domestic, and viewing them in context we are able to answer questions pertaining to their isolation, group homogeneity, diet, recreational activities, working
conditions, and the composition of their families.

Our group sought to answer some of these questions in our excavation of Structure E located in Community 2 in the Longdale Mining Complex. This excavation consisted of three foot by three foot test pits placed in and around the structure. In digging these test pits, we found nails, ceramic, curved and flat glass, and other miscellaneous metal and glass artifacts. More specifically, we revealed medicine bottles, children's toys, and an abundance of earthenware. These indications as well as the size and form of the structure led us to believe that it was a domestic dwelling. These findings while being significant and informative only gave us a limited insight into the make-up of the community as a whole. In order to gain a more comprehensive view of Community 2, we decided to undertake the clearing, mapping, and excavation of another structure within this community.

Our search brought us to Structure B, approximately 100 yards northeast of Structure E. The initial evaluation of the site was that it was a structure of considerably smaller size built into an embankment approximately 30 yards west of Simpson Creek. The foundation was composed of similar stones in size and shape, but we found the structure contained wooden corner posts which were absent in Structure E. We also
noticed the presence of cement in this structure's design rather than the mortar used at Structure E. Unlike Structure E, this structure was built on the side of the hill demanding considerable effort on the part of its builder. With flat area surrounding Structure B, we can infer that this location is correlated with the structure's function and purpose. Through more extensive examination of Structure B, we hoped to further our knowledge of this structure as well as the community as a whole.

Structure B.

Our first step in the mapping and excavation process of Structure B was to clear off the vegetation and loose debris around the site. The goal in doing this was to obtain a clear view of the structure and establish its boundaries and/or extending walls. In doing so we also recovered a number of surface artifacts such as a horseshoe, metal cable, metal hinge, shattered window pane, metal rod, and other miscellaneous glass fragments. In this visual survey of the site, we decided that this structure was worthy of excavation and could provide some valuable insights into the lifeways of the population of Community 2.

We chose to place two three foot by three foot test pits in places which would best represent the structure as well as yield the information that we were seeking. One pit was placed on top of the hill a few feet
west of the structure while the other was placed at the base of the embankment a few feet east of the structure.

In our excavation of the western pit, or pit 1, we found a small number of artifacts which could possibly help us determine Structure B's significance in the mining community. Our findings included moderate amounts of machine cut and wire nails as well as some fragments of clear glass. Besides finding artifacts, we noticed an unusual change in soil color in the northern corner of the pit. While the majority of the pit soil remained dark and black, the northern corner soil had become a dark yellowish brown color. As we continued to excavate further, the dark yellowish brown soil (10 YR 4/4) gradually extended across the pit. By the time we were a foot deep into the pit, the feature was present throughout it. There were no apparent layer changes as we only encountered these two soil colors without a definite transition between the two over the course of this pit excavation. Because of our time constrictions in the field, we were unable to open additional pits to fully examine the feature.

Our next pit towards east of the structure, pit 2, was beneficial to us in that it yielded a more substantial artifact sample. Some of the artifacts that we revealed included machine cut and wire nails, other miscellaneous metal, flat glass, as well as a single shard of refined white
earthenware. We also recovered a diagnostic artifact in the form of a machine gear bearing patents from the years 1867, 1868, and 1871. During our pit excavation we noticed significant amounts of shale and coal. We attributed the shale deposits to the position of the pit in the floodplain of Simpson Creek while the coal may pertain to the prior use of Structure B.

Another step we took in helping us learn more about the structure was mapping the site. The map serves as a reference and record of the site's spatial layout. The process we used in attaining the exact coordinates of the structure for our map involved measuring from two known points on the map. In order to plot the desired point, we measured the distance from the known points to the intersection of that desired point be it part of the wall or of the wall scatter. With these distances recorded, we converted them to fit our map scale and used basic geometric principles to aid us in accurately placing these points on our map.

Conclusion.

Through our clearing, mapping, and excavation of Structure B in Community 2, we learned a few things about the structure's past. Although our findings were limited, we can safely conclude that this structure's primary use was most likely industrial. The absence of domestic artifacts
such as significant amounts of ceramic, the great amounts of metal artifacts, as well as the structure's small size all support this conclusion. We figure that the structure's six foot by six foot dimensions clearly limits its use to something non-residential.

In determining the age of the structure we used some of its architectural aspects. The fact that three of the wooden corner posts were still upright led us to believe that the structure was constructed more recently than Structure E. The presence of the cement and lack of mortar also supports this idea because mortar was used in more primitive construction as compared to the later use of cement. These indications suggest that the structure's primary time of use was most likely during the early twentieth century.

Although our sole diagnostic artifact revealed dates earlier than this, its near surface location led us to believe that the artifact was possibly redeposited and not related to this structure. These conclusions that we have made show that Community 2 was not only domestic dwellings, but a combination of domestic and industrial structures. Structure E showed us that there was occupation at Community 2 during the later nineteenth century; whereas Structure B proved that there was twentieth century occupation as well.
Longdale Mining Complex Stratigraphic Level Forms

Community II Structure B Unit I
Level 1 Excavators SF BD Date 5-31-96

Depth:
NW: .35
SW: .32
SE: .30
NE: .31
C: .39

SCALE:

Soil Description

Artifacts nails, some glass

Features and Associations 10 YR 4/4 soil in North corner of pit

Additional Notes These are not soil layer changes, but significant changes in the spread of 10 YR 4/4
Longdale Mining Complex Stratigraphic Level Forms

Community: II
Structure: B
Level: 2
Excavators: BD/SG
Unit: 1
Date: 5/31/96

Depth:
NW: .62
SW: .54
SE: .55
NE: .60
C: .65

SCALE: ____________

Soil Description ____________

Artifacts: nails & glass

Features and Associations: 10 YR 4/4 soil extending further into pit

Additional Notes: this is not a soil layer change but significant change in 10 YR 4/4 feature

Legend:
- = rock
- = 10 YR 4/4 dark yellowish brown
= 10 YR 2/1 black
Longdale Mining Complex Stratigraphic Level Forms

Community | Structure | Unit | Level | Excavators | Date |
-----------|-----------|------|-------|------------|------|
| II        | B         | 1    | 3     | BD/SF      | 5/31/96 |

Depth:

NW: 98
W: 92
SE: 93
NE: 60
C: .75

SCALE: _______________________

Soil Description

Artifacts: piece of glass

Features and Associations

Additional Notes: There are at soil layer changes, but significant changes in the spread of 10 YR 4/4
Longdale Mining Complex Stratigraphic Level Forms

Community  \( \text{II} \)  Structure  \( \text{B} \)  Unit  \( \text{1} \)  Level  \( \text{4} \)  Excavators  \( \text{B/D SF} \)  Date  \( 5/31/96 \)

Depth:
N\#: 1.01  
S\#: .45
Sf: .94  
We: .45  
C: .92

SCALE: ______________________

Soil Description  10 YR \( \frac{3}{4} \) 

Artifacts

Features and Associations  10 YR \( \frac{3}{4} \) soil occupies entire pit

Additional Notes  There are not soil layer changes but significant changes in the spread of 10 YR \( \frac{3}{4} \)
Longdale Mining Complex Stratigraphic Level Forms

Community II  Structure B  Unit 1
Level 5  Excavators BD/5F  Date 5/31/96

Depth:
NW: 1.30
SW: 1.15
SE: 1.25
NE: 1.35
C: 1.30

Soil Description  10 YR 7/4 dark yellowish brown

Artifacts  None

Features and Associations

Additional Notes  These are not soil layer changes, but significant changes in the speed at 10 YR 7/4.
**Longdale Mining Complex Stratigraphic Level Forms**

<table>
<thead>
<tr>
<th>Community</th>
<th>Structure</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>B</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Excavators</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SF BD</td>
<td>5/30/1960</td>
</tr>
</tbody>
</table>

**Depth:**

<table>
<thead>
<tr>
<th>NØ</th>
<th>NW</th>
<th>SE</th>
<th>NE</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>.22</td>
<td>21</td>
<td>.21</td>
<td>.10</td>
<td>.23</td>
</tr>
</tbody>
</table>

**SCALE:** 1 inch = 1 foot

**Soil Description**

3½ 10' lower

**Artifacts**

- Flat glass, bottle glass, undatable
- Metal tins

**Features and Associations**


**Additional Notes**

- Abandoned slot deposit as well as...
Longdale Mining Complex Stratigraphic Level Forms

<table>
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<th>Structure</th>
<th>Unit</th>
<th>Level</th>
<th>Excavators</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>B</td>
<td>2</td>
<td>2</td>
<td>BD SF</td>
<td>5/30/72</td>
</tr>
</tbody>
</table>

Depth:
- NW: 71
- SW: 80
- SE: 56
- NE: 70
- C: 71

SCALE: 1

Soil Description
- 3/4 10 yr

Artifacts
- No list. Some of rocks

Features and Associations
- No features or associations noted

Additional Notes
Longdale Mining Complex Stratigraphic Level Forms

Community II Structure B Unit 2
Level 3 Excavators BP SF Date 5-30-96

Depth:
NW: 1.2
SW: 1.15
SE: 1.0
NE: 1.1
C: 1.1

SCALE: __________________

Soil Description 10 YR 4/4

Artifacts None

Features and Associations

Additional Notes
Longdale Mining Complex Stratigraphic Level Forms

Community        Structure  Unit
Level            Excavators  Date

Depth:
NW: 1.4
SW: 1.2
SE: 1.45
NE: 1.45
C: 1.25

SCALE: 

Soil Description  10 YR 4/3

Artifacts  None

Features and Associations

Additional Notes
Longdale Mining Complex
Structure B
Surface artifacts (left at site)
Sean Fowler & Ben Didier
5-30-96

I. metal
   A. nails
      wire (2)
   B. other
      inch-thick metal cable (1)
      foot-long metal rod (1)
      hinge (1)
      horse shoe (1)
      tin bucket (1)
      metal cog (1)

II. glass
    thick industrial window glass w/metcal frame (1)
    thick curved green glass (1)
    glass bottle fragment w/makers mark (1)

Glass
W.T. Co.
E.
U.S.A.

III. ceramic
    1.8 refined white earthenware (1)

Total: 12
Longdale Mining Complex
Community # 2
Structure B
Unit 1
level 1
Sean Fowler & Ben Didier
5-31-96

I. Metal
   A. nails
      machine cut (4)
      wire (1)

II. glass
   A. clear
      i) curved (3)

Total #: 8
Longdale Mining Complex
Community #2
Structure B
Unit 1
Level 2
Ben Didier & Sean Fowler
5-31-96

I. metal
   A. nails
      machine cut (1)
      unidentifiable (4)

II. glass
    A. clear
       unidentifiable fragments (2)

Total #: 7
Longdale Mining Artifact
Community #2
Structure B
Unit 1
level 3
Sean Fowler ½ Ben Didier
6-31-96

I. glass
   A. clear
      i. curved (1)

Total Artifacts: 1
LMC
Community 2
Structure B
P.t 2
5/30/96

Ben Didier / Sean Fowler
Layer 1

I Metal
A. Nails
  i. machine cut (4)
  ii. wire (6)
B. Other
  i. metal bending (2)
  ii. wires (2)
  iii. odd sized metal piece (1)
  iv. bugs (1)

II Glass
A. Clear
  i. flat (10)
  ii. curved (2)
B. Colored
  i. curved (2)

III Ceramic
A. Earthenware
  i. refined (1)

Total # of Artifacts: 26
I. Metal
   A. Nails
      i. machine cut (2)
      ii. round head (3)
   B. Other
      i. enamelled wire (4)

II. Glass
   A. Clear
      i. curved (4)

Total # of Artifacts: 7
LMC
Community
Structure B
Total Artifact Assembly

I Metal
A. Nails
  i. Machine cut (11)
  ii. Wire (4)
  iii. Unidentified (7)
B. Other (13)
Total Metal: 35

II Glass
A. Clear
  i. Flat (11)
  ii. Curved (6)
B. Colored
  i. Curved (3)
C. Unidentified (clear) (2)
Total Glass: 24

III Ceramic
A. Earthenware
  i. Refined (2)
Total Ceramic: 2

Total Artifacts: 61